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<b>INFORMATION DISCLOSURE STATEMENT</b>
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ATTY. DOCKET NUMBER PRM-0052 SERIAL NUMBER \_\_\_\_\_ FILED \_\_\_\_\_FIRST INVENTOR: K. Iwamoto TITLE SEMICONDUCTOR DEVICE, METHOD OF MANUFACTURING THE SAME, AND METHOD OF MANUFACTURING METAL COMPOUND THIN FILM EXAMINER \_\_\_\_\_ ART UNIT \_\_\_\_\_

1. ☒ Applicant submits herewith a copy of (a) attached form PTO-1449, which lists all patents, publications, applications, or other information submitted for consideration by the Office; (b) a legible copy of each document required by 37 C.F.R. §1.98(b)(2).
2. ☐ Applicant herein apprises the Patent Office of references cited in a parent U.S. application from which this application obtains the benefit of an earlier filing date under 35 U.S.C. §120. The Serial Number of the parent application is U.S. Application \_\_\_\_\_ filed \_\_\_\_\_ and entitled \_\_\_\_\_.  
The publications cited therein are listed on attached Form PTO-1449. In accordance with 37 C.F.R. §1.98(d) copies of the listed publications are not required. ☐ Additional parent patent applications are listed on an attached sheet.
3. ☒ In accordance with 37 C.F.R. §1.98(a)(3), Applicant hereby certifies that for each reference not in English (check at least one box below):  
☐ A copy of a translation of one or more non-English document, or portion thereof, is provided herewith;  
☒ A concise explanation is (check at least one box below):  
☒ provided in the accompanying foreign or international search report; ☐ incorporated into the specification; and/or ☒ provided herewith.

**37 C.F.R. §1.97(b)(1), (b)(2) – WITHIN 3 MONTHS OF FILING OR ENTRY IN NATIONAL STAGE**

4. ☒ Since this Information Disclosure Statement is being filed within three months of the filing date of the subject application or within three months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application, no fee or certification under 37 C.F.R. §1.97(e) is required.

**37 C.F.R. §1.97(b)(3), (b)(4) – PRIOR TO MAILING OF FIRST OFFICE ACTION OR FIRST ACTION AFTER REQUEST FOR CONTINUED EXAMINATION**

5. ☐ Since this Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits, or before the mailing of a first Office action after the filing of a request for continued examination under 37 C.F.R. §1.114, no fee or certification under 37 C.F.R. §1.97(e) is required.

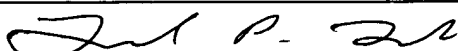
**37 C.F.R. §1.97(c) – AFTER FIRST ACTION, BEFORE FINAL ACTION OR ALLOWANCE**

6. ☐ Since this Information Disclosure Statement is being filed outside of the period provided for in 37 C.F.R. §1.97(b), but before the mailing date of a Final Rejection or Notice of Allowance, this submission is being accompanied by (one of the following boxes must be checked):
- ☐ the fee required under 37 C.F.R. §1.97(c)(2) and specified in 37 C.F.R. §1.17(p).
  - ☐ the statement specified in 37 C.F.R. §1.97(e) (Box 8 or 9 must be checked).

**37 C.F.R. §1.97(d) – AFTER FINAL REJECTION OR ALLOWANCE**

7. ☐ Since this Information Disclosure Statement is being filed after the period specified in 37 C.F.R. §1.97(c), but on or before payment of the issue fee and is accompanied by both the statement specified in 37 C.F.R. §1.97(e) and the fee set forth in 37 C.F.R. §1.17(p). (Box 8 or 9 must be checked.)
8. ☐ In accordance with 37 C.F.R. §1.97(e)(1), Applicant's attorney certifies that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. ☐ The foreign or international search report(s) is/are enclosed.
9. ☐ In accordance with 37 C.F.R. §1.97(e)(2), Applicant's attorney certifies that no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing this certification after making reasonable inquiry, no item of information contained in this Information Disclosure Statement was known to any individual designated in 37 C.F.R. §1.56(c) more than three months prior to the filing of the information disclosure statement.
10. ☒ In the event the Commissioner of Patents deems that any additional fee is required under 37 C.F.R. §§ 1.16 or 1.17 in connection with this application, Applicant's attorneys authorize that such fee be charged to Deposit Account No. 06-1130.

11. Consideration of this Information Disclosure Statement is respectfully requested.

Name:	Daniel P. Lent	Registration Number	44,867
Signature		Date	September 23, 2005

**CERTIFICATE OF MAILING OR TRANSMISSION:** I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or [ ] facsimile transmitted to the U.S. Patent and Trademark Office to Facsimile No. \_\_\_\_\_ on the date shown below.

Name			
Signature		Date	



**INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

ATTY DOCKET NO.

PRM-0052

APPLICATION NO.

107550643

APPLICANT(S)

Kunihiko Iwamoto et al.

FILING DATE

GROUP ART UNIT

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**U.S. PATENT APPLICATION PUBLICATIONS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	JP 59-011663	01/21/1984	Japan (w/English abstract)				
	JP 2002-299607	10/11/2002	Japan (w/English abstract)				
	JP 2003-008011	01/10/2003	Japan (w/English abstract)				

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

		International Search Report for Application No. PCT/JP2004/004060 mailed 07/13/2004
		Sanghun Jeon, et al. "Electrical characteristics of ZrOxNy prepared by NH3, annealing of ZrO2" Applied Physics Letters, Volume 79, Number 2, July 9, 2001, Pgs. 245-247.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	ATTY DOCKET NO. <b>PRM-0052</b>	APPLICATION NO. <b>10/550643</b>
	Kunihiko Iwamoto et al.	
	FILING	GROUP ART

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

U.S. PATENT APPLICATION PUBLICATIONS							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS								
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>			
			Hyung-Seok Jung et al. "Improved Current Performance of CMOSFETs with Nitrogen Incorporated HfO <sub>2</sub> -Al <sub>2</sub> O <sub>3</sub> Laminate Gate Dielectric", Electron Devices Meeting, 2002. IEDM' 02.Digest. International, 2002, 12, pages 853-856.
			T. Nishimura et al. "Effects of Nitrogen Incorporation into HfAlO <sub>x</sub> Films on Gate Leakage Current - From XPS Study of Hf Bonding States", Extended Abstracts of International Workshop On Gate Insulator 2003, 11, pages 180-185.

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.